

SHARP**SERVICE MANUAL**

SESULC40LE730

Issued: 27th January 2012**LED LCD COLOUR TELEVISION**Wi-Fi & 3D Ready / DVB-T / C PAL B/G / SECAM B/G, D/K, L/L^{*} SYSTEM COLOUR TELEVISION**MODELS****LC-40LE730E****LC-46LE730E****LC-40LE730RU****LC-46LE730RU**

In the interests of user safety (required by safety regulations in some countries) the set should be re-stored to its original condition and only parts identical to those specified should be used.

For this model, the digital tuner has been changed.

Due to the digital tuner has been changed, the main unit has also been changed.

When servicing the product, use this manual with the service manual LE-40LE730E already issued.

The new digital tuner model can be identified with the following markings:

- The **A** character is added at the end of the model name on the model label.
- The **A** character is also added at the end of the model name on the carton label.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

MODIFIED PARTS

Ref No.	Parts Name/Description	LC-40/46LE730 A LG tuner model	LC-40/46LE730 NuTune tuner model	Remarks
PRINTED WIRING BOARD ASSEMBLIES				
	Main Unit	DUNTKF915FM09	DUNTKF915FM02	
MAIN Unit				
		QPWBXF915WJN2	QPWBXF915WJN1	Not supplied independently
TU1101	Hybrid Tuner	RTUDAA090WJQZ	RTUDAA082WJQZ	
FB3301	Resistor 0 1/16W Metal Oxide	VR5-CY1JF000JY		
40" MECHANICAL PARTS				
	40" Rear cabinet	GCABBC083WJ1A	GCABBB993WJ1A	
	Terminal cover side	LANGKD554WJFW	LANGKD379WJFW	
46" MECHANICAL PARTS				
	46" Rear cabinet	GCABBC084WJ1A	GCABBB994WJ1A	
	Terminal cover side	LANGKD556WJFW	LANGKD405WJFW	

Important notes for servicing:

- The new LG tuner (RTUDAA090WJQZ) must be mounted in "N2" version of main board.
- With LG tuner must be mounted the new rear cabinet: GCABBC083WJ1A code for 40" or, GCABBC084WJ1A code for 46". See page 25 and 26.
- With LG tuner must be mounted the new terminal cover side: LANGKD554WJFW code for 40" or, LANGKD554WJFW code for 46". See page 25 and 26.
- All TV software versions are fully compatible for both tuners (NuTune & LG).

NEW TUNER IDENTIFICATION

Suffix A for identification of LG Tuner in the market.
Only **LC-40LE730E** & **LC-46LE730E** models

Back Cabinet label

SHARP
LCD COLOUR TV MODEL LC-40LE730E [A]
220-240V~ 50Hz 102W
OMOLOGAZIONE MINISTERO COM.:
012665/100773/S/T
SERIAL NO. YMM123456
SHARP CORPORATION
MADE IN JAPAN

SHARP
LCD COLOUR TV MODEL LC-46LE730E [A]
220-240V~ 50Hz 124W
OMOLOGAZIONE MINISTERO COM.:
012668/100774/S/T
SERIAL NO. YMM123456
SHARP CORPORATION
MADE IN JAPAN

CAUTION
TO PREVENT ELECTRIC SHOCK,
DO NOT REMOVE COVER.
NO-USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

ATTENZIONE
PER EVITARE IL RISCHIO DI SCOSSE ELETTRICHE
NON RIMOVIERE IL COPERCHIO POSTERIORE.
NON CI SONO PARTI INTERNE ACCESSIBILI
ALL'UTILIZZATORE. IN CASO DI NECESSITÀ
RIVOLGERSI ESCLUSIVAMENTE A PERSONALE
DI SERVIZIO AUTORIZZATO.

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Suffix A for identification of LG Tuner in the market.
Only **LC-40LE730E** & **LC-46LE730E** models

Carton Box label

LC-40LE730E [A]

LC-40LE730E [A]

LC-40LE730E [A]

LC-46LE730E [A]

LC-46LE730E [A]

LC-46LE730E [A]

DVB - T/C HDTV

CAUTION
18kg
0.12m³

DVB - T/C HDTV

CAUTION
24.5kg
0.20m³

SCHEMATIC DIAGRAMS

Description:

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on the stable supply voltage of AC 230V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance “ Ω ” is omitted. ($K=k\Omega=1000\Omega$, $M=M\Omega$).
 2. All resistors are $\pm 5\%$, unless otherwise noted. ($J= \pm 5\%$, $F= \pm 1\%$, $D= \pm 0.5\%$)
 3. All resistors are 1/16W, unless otherwise noted.
 4. All resistors are Carbon type, unless otherwise noted.
- c : Solid w : Cement
s : Oxide Film T : Special
N : Metal Coating

CAPACITOR

1. All capacitors are μF , unless otherwise noted. ($P=pF=\mu\mu F$).
 2. All capacitors are 50V, unless otherwise noted.
 3. All capacitors are Ceramic type, unless otherwise noted.
- (ML): Mylar (TA): Tantalum
(PF): Polypro Film (ST): Styrol

CAUTION:

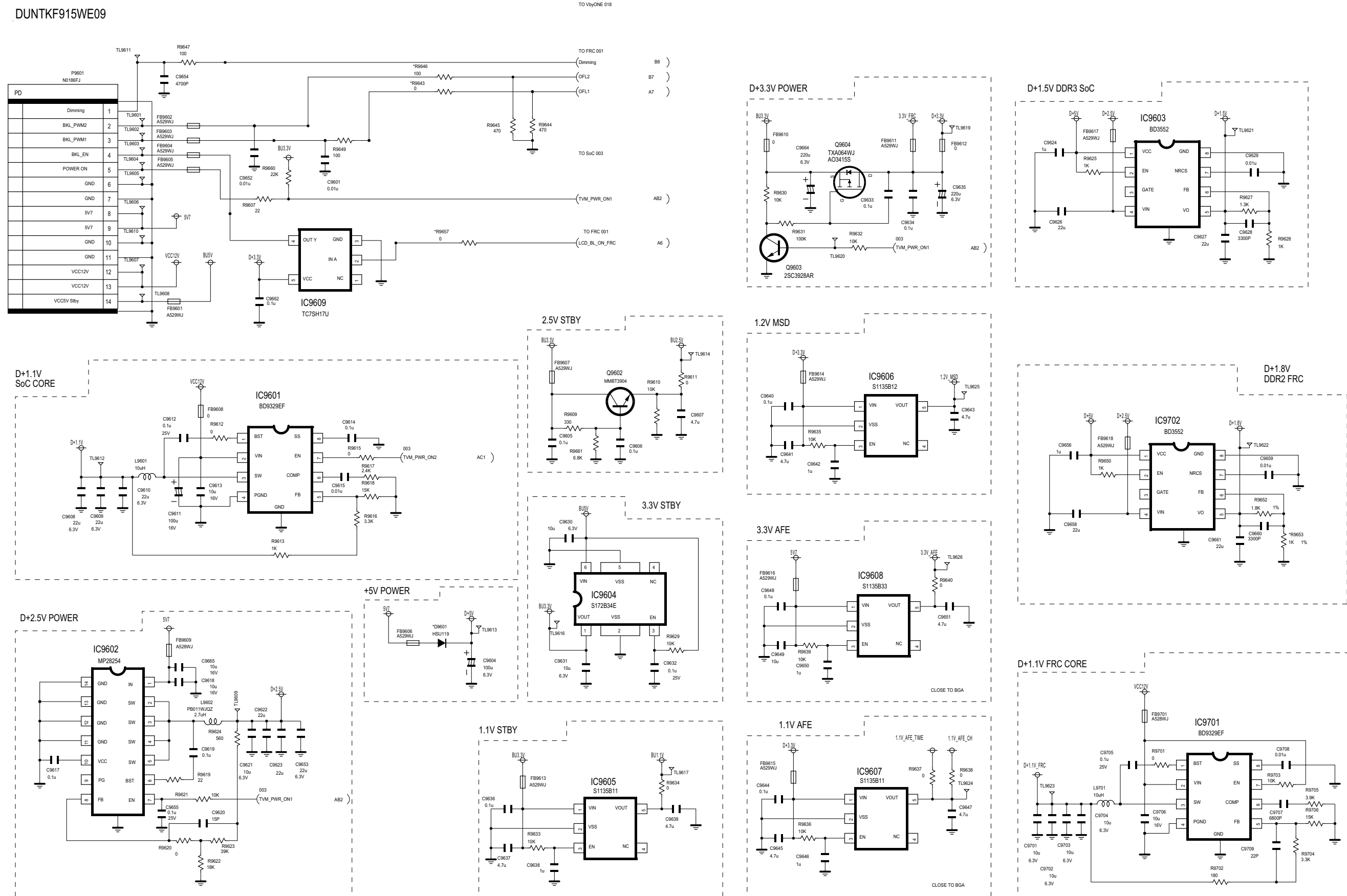
This circuit diagram is original one, therefore there may be a slight difference from yours.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH “ ” () ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

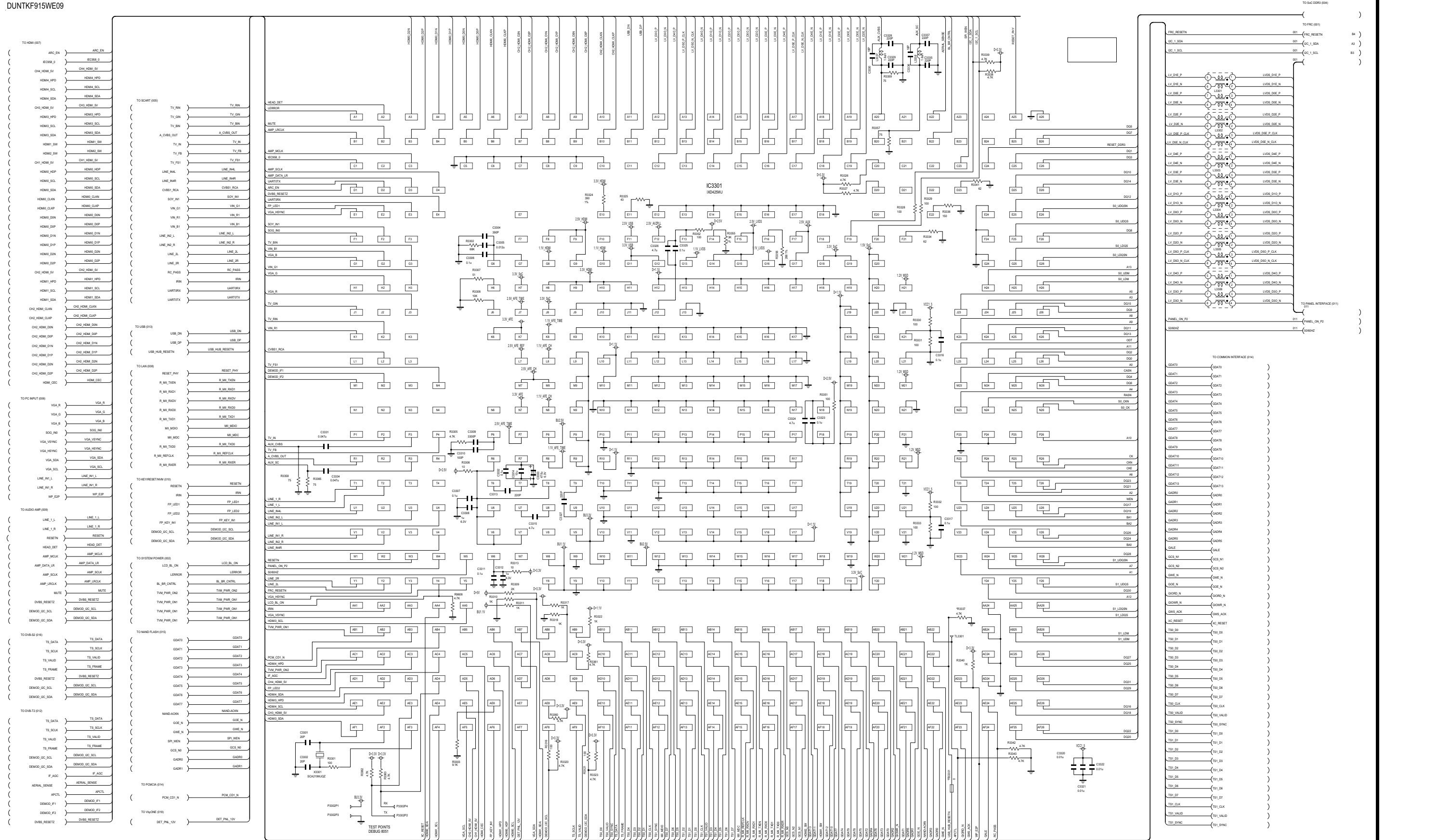


40" / 46" Main Unit Diagram 2/16 (System Power) (DUNTKF915WE09)

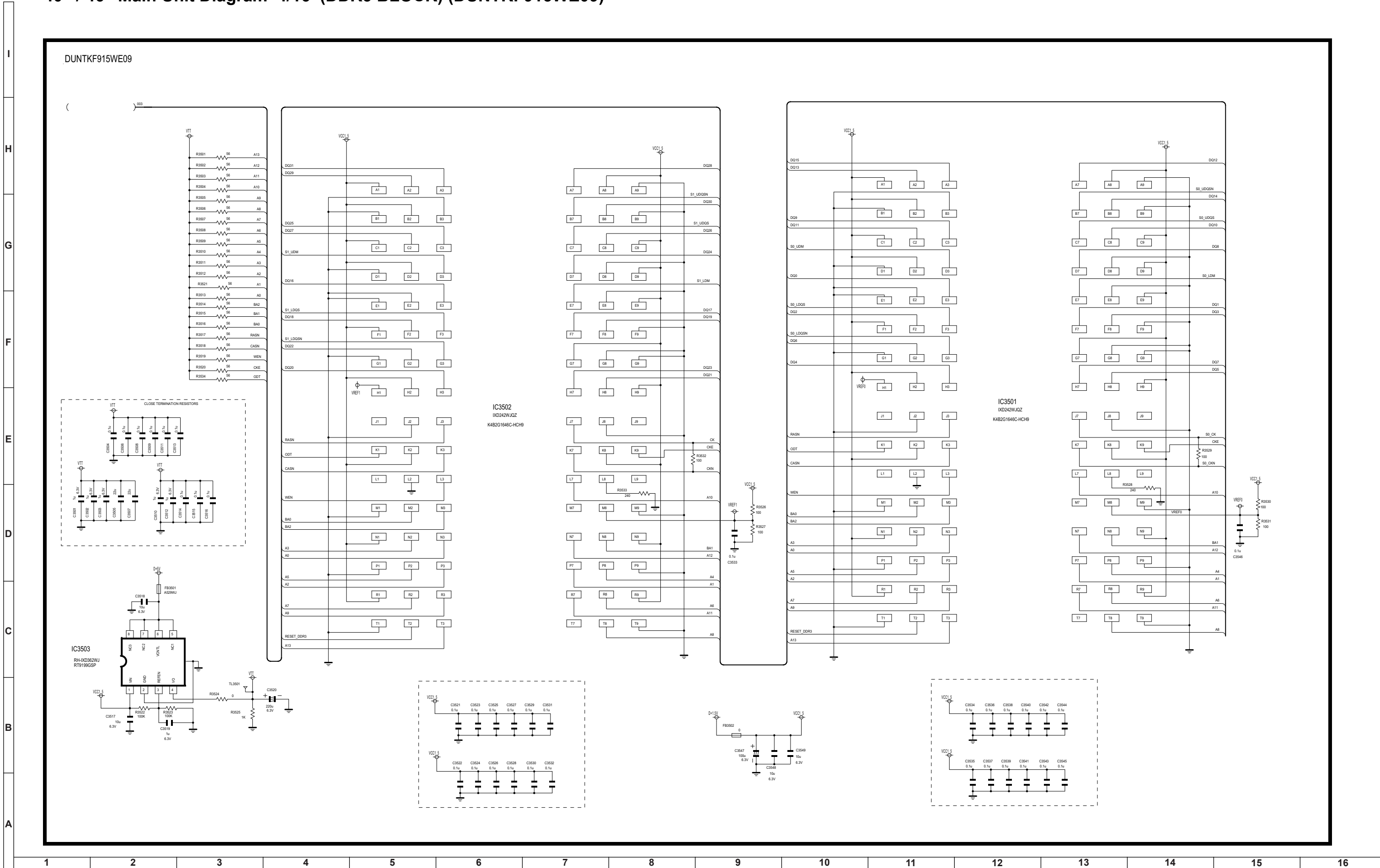


40" / 46" Main Unit Diagram 3/16 (SoC) (DUNTKF915WE09)

I
H
G
F
E
D
C
B
A



40" / 46" Main Unit Diagram 4/16 (DDR3 BLOCK) (DUNTKF915WE09)



DUNTKF915WE09

SCART

TO AUDIO AMP. (009)

MUTE_B

TO SoC (003)

A_CVBS_OUT

TV_RIN

TV_GIN

TV_BIN

LINE_2L

LINE_2R

IC552 NJM4565V

Q552 IMH23T110

SC552 2A161WJ

TV_IN

TV_FB

TV_FS1

LINE_IN4L

LINE_IN4R

RS232 SERVICE

J551 JN24WJ

TO SoC (003)

UART0RX

UART0TX

HDTV1

J552 LA037WJQZ

TO SoC (003)

CVBS1_RCA

SOY_IN1

VIN_G1

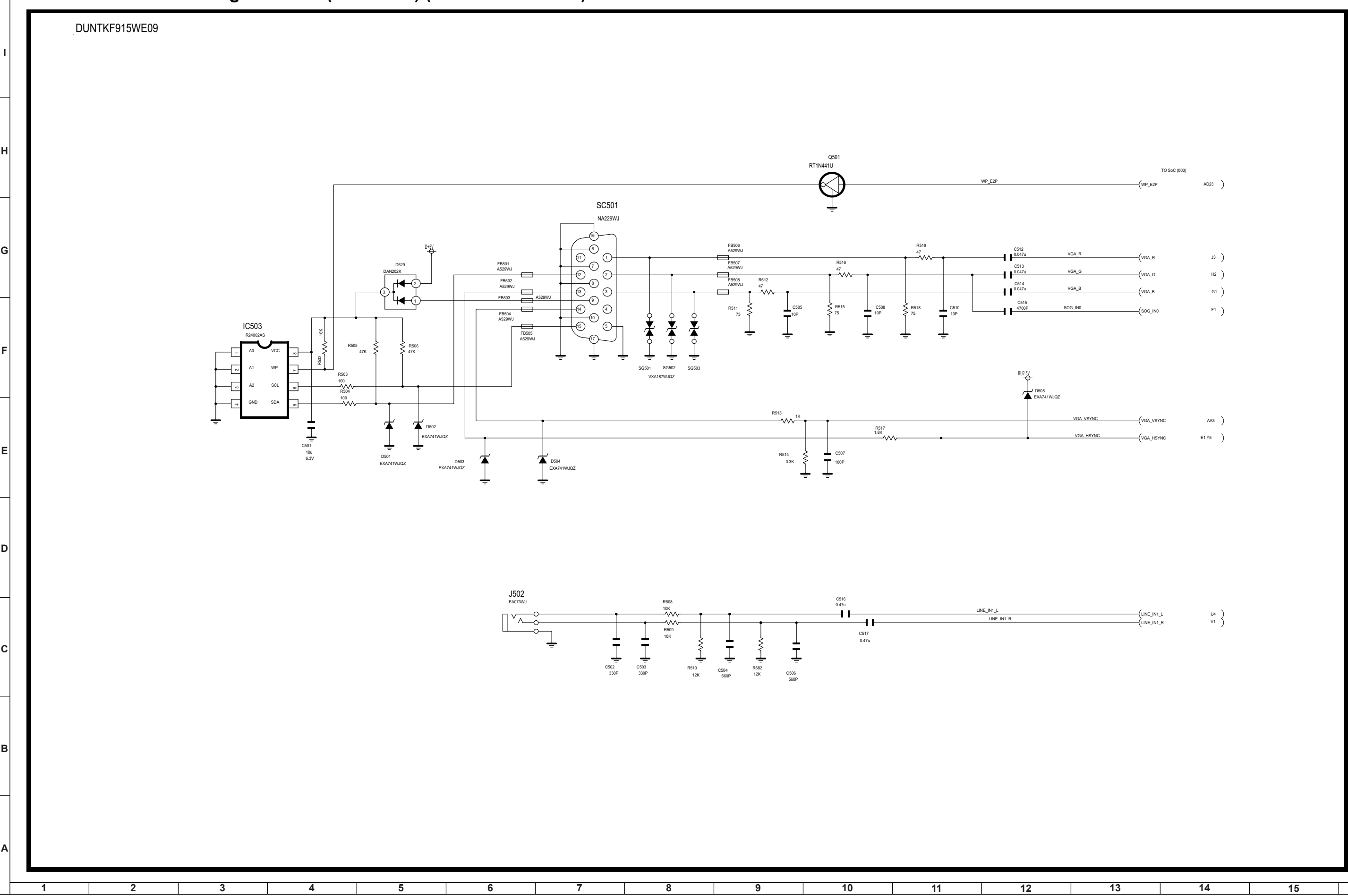
VIN_B1

VIN_R1

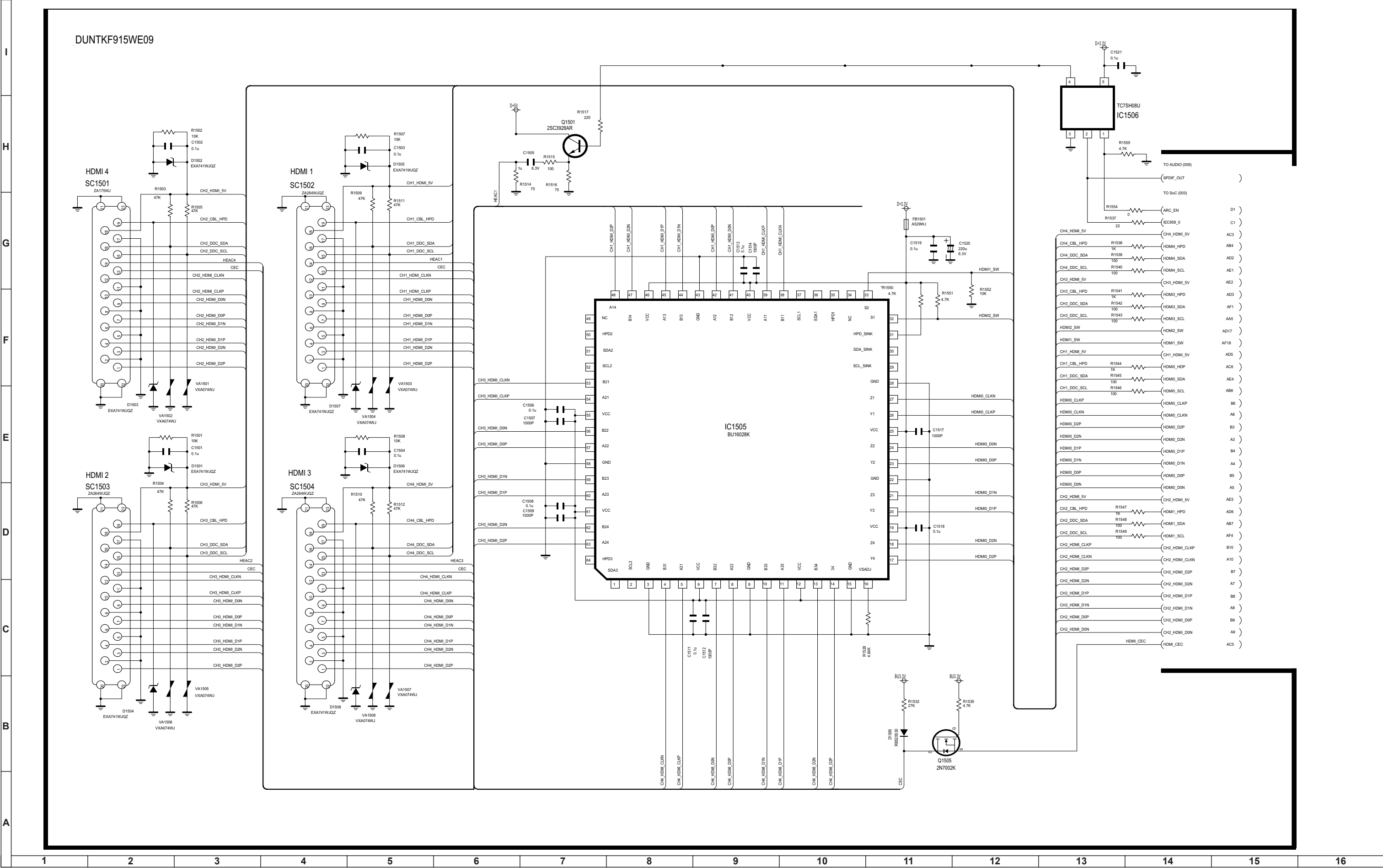
LINE_IN2_L

LINE_IN2_R

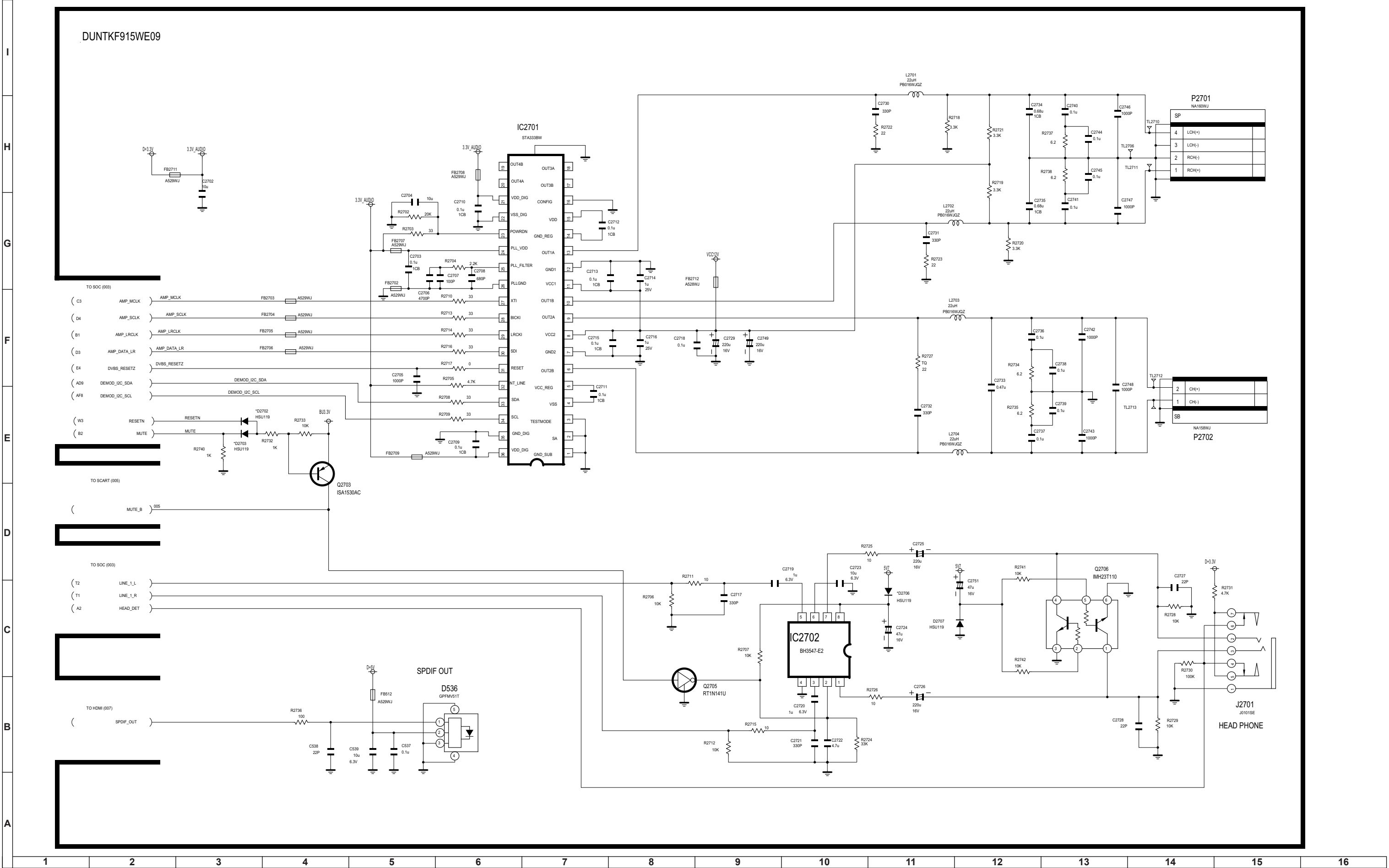
40" / 46" Main Unit Diagram 6/16 (PC INPUT) (DUNTKF915WE09)



40" / 46" Main Unit Diagram 7/16 (HDMI) (DUNTKF915WE09)



40" / 46" Main Unit Diagram 9/16 (Audio Amp. Interface) (DUNTKF915WE09)



40" / 46" Main Unit Diagram 10/16 (SoC 2) (DUNTKF915WE09)

I

H

G

F

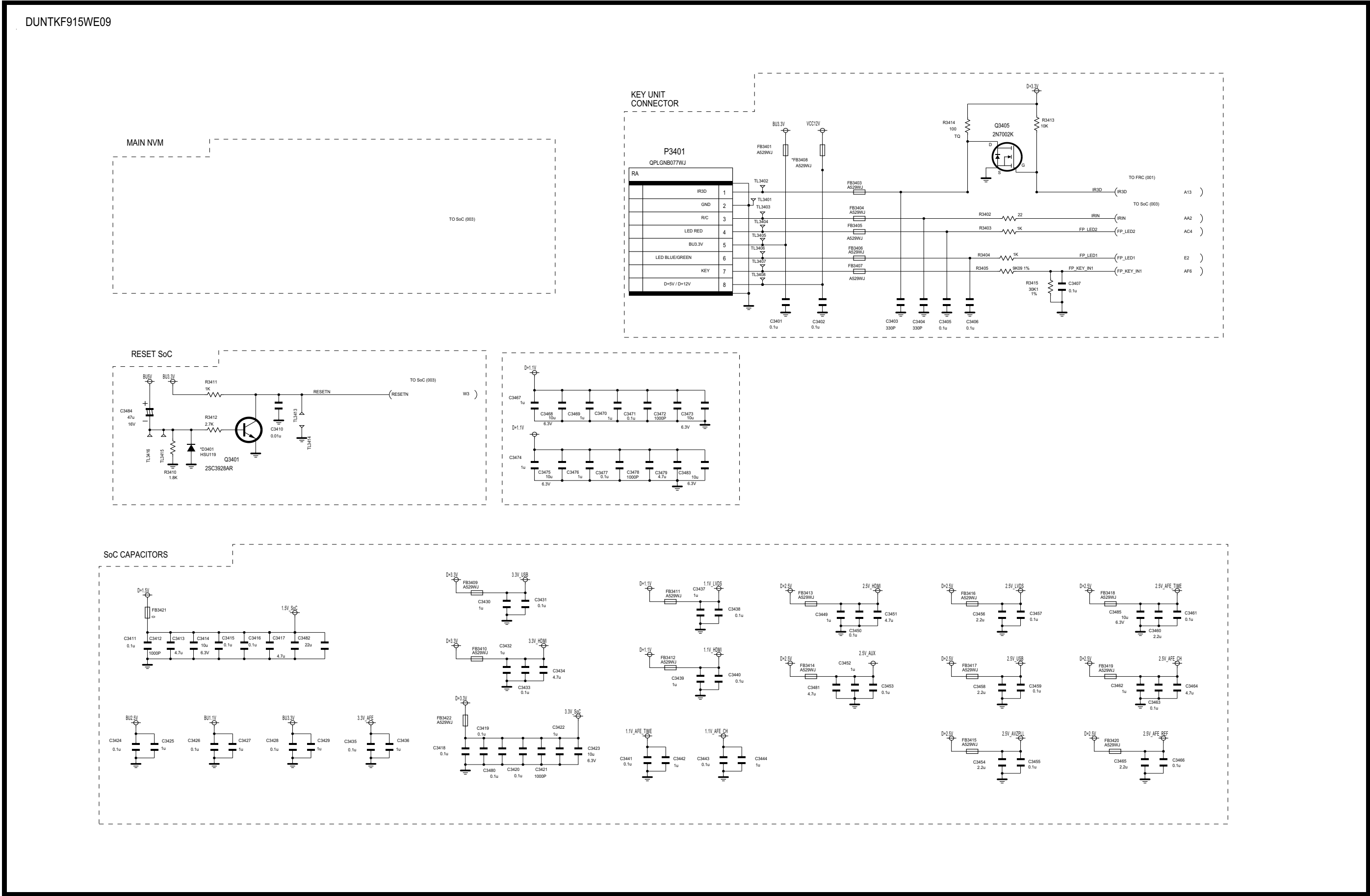
E

D

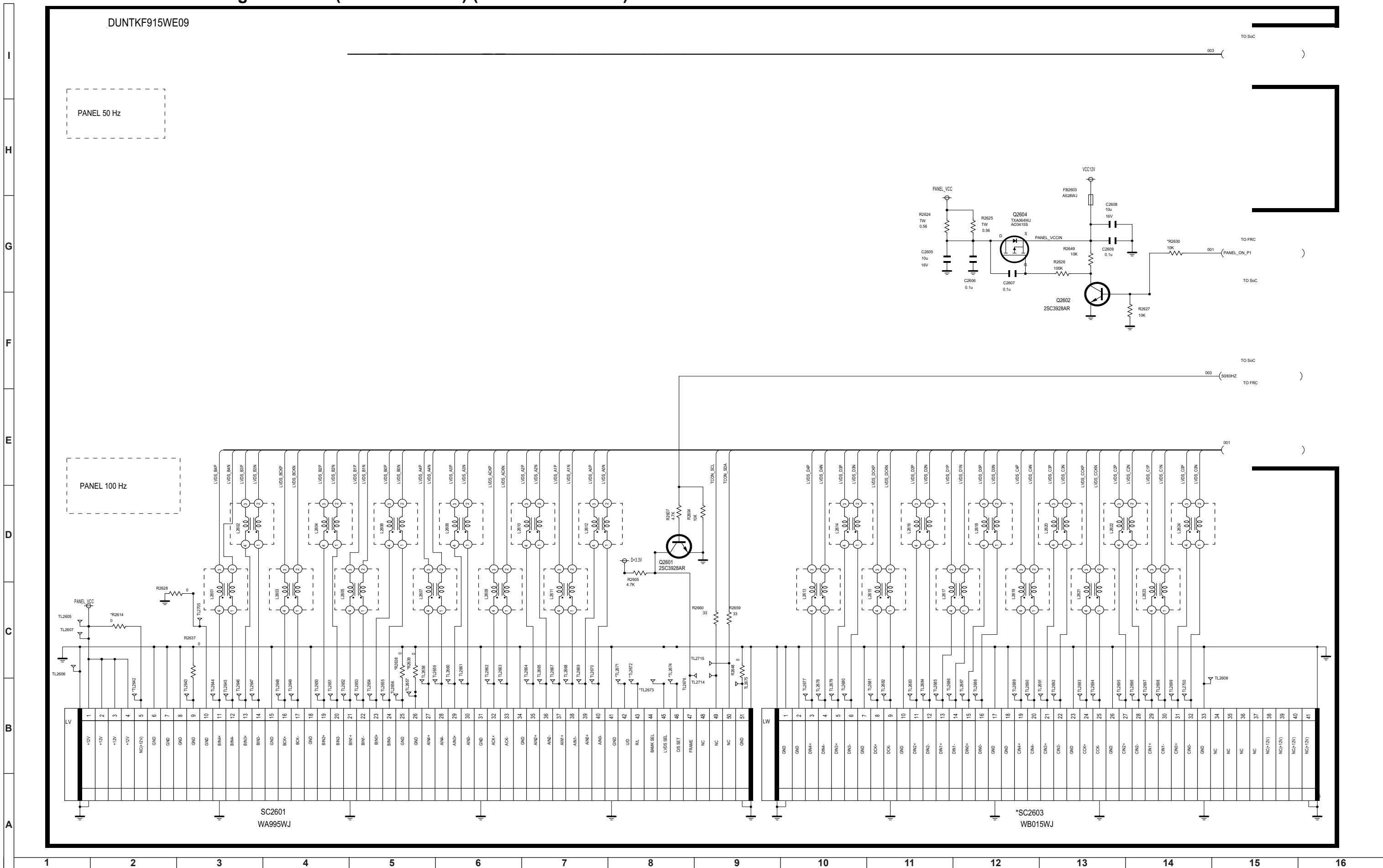
C

B

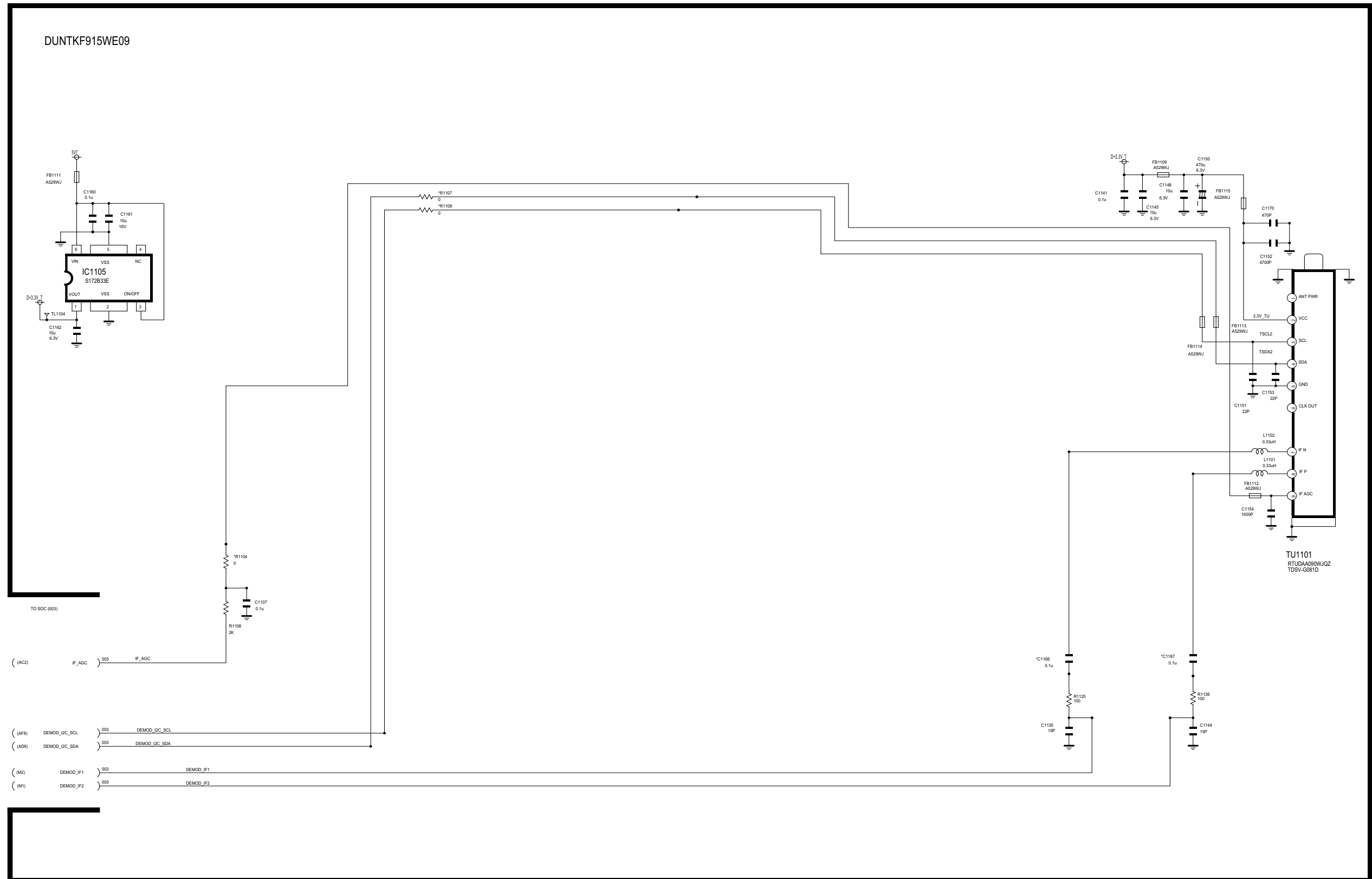
A



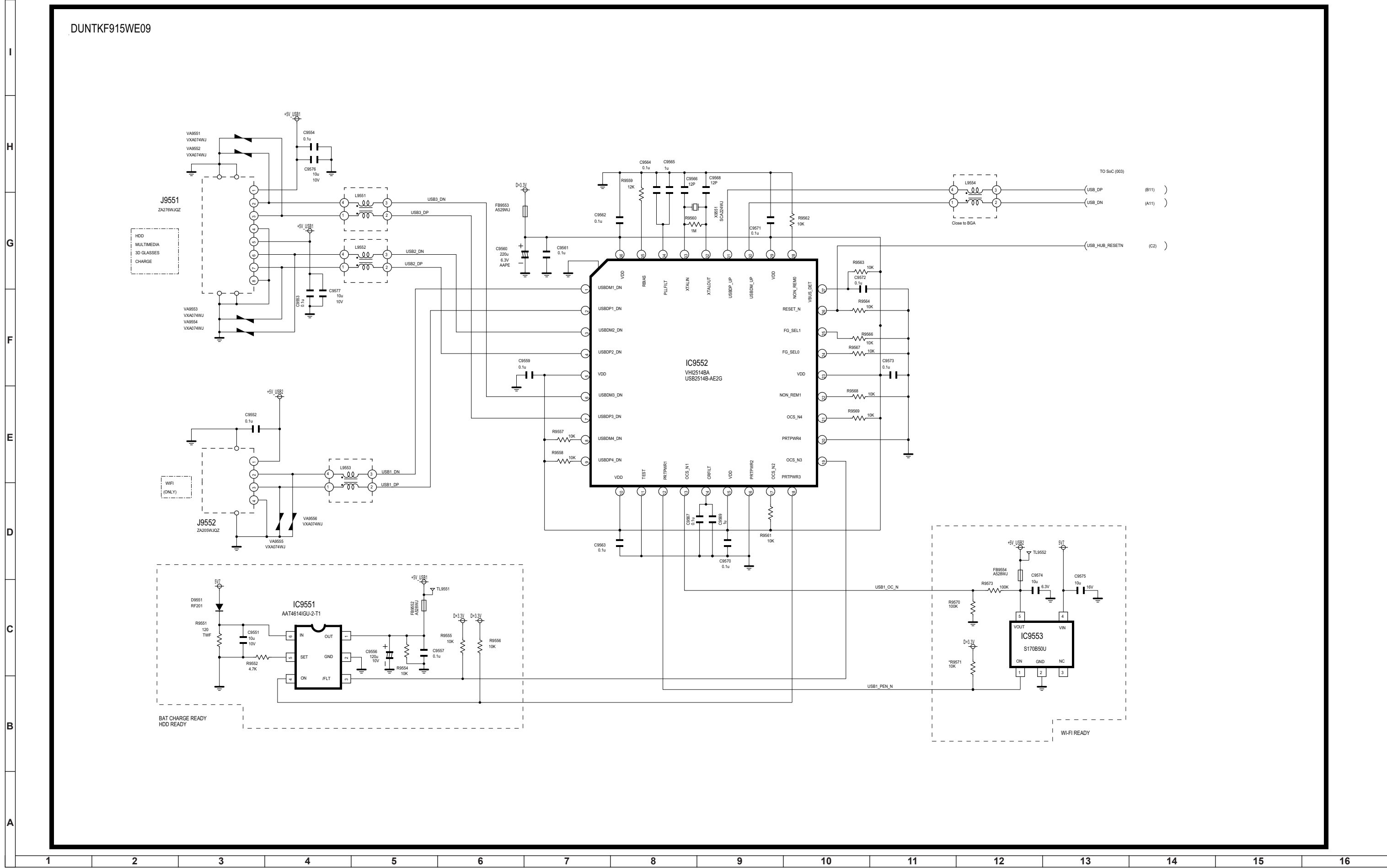
40" / 46" Main Unit Diagram 11/16 (Panel Interface) (DUNTKF915WE09)



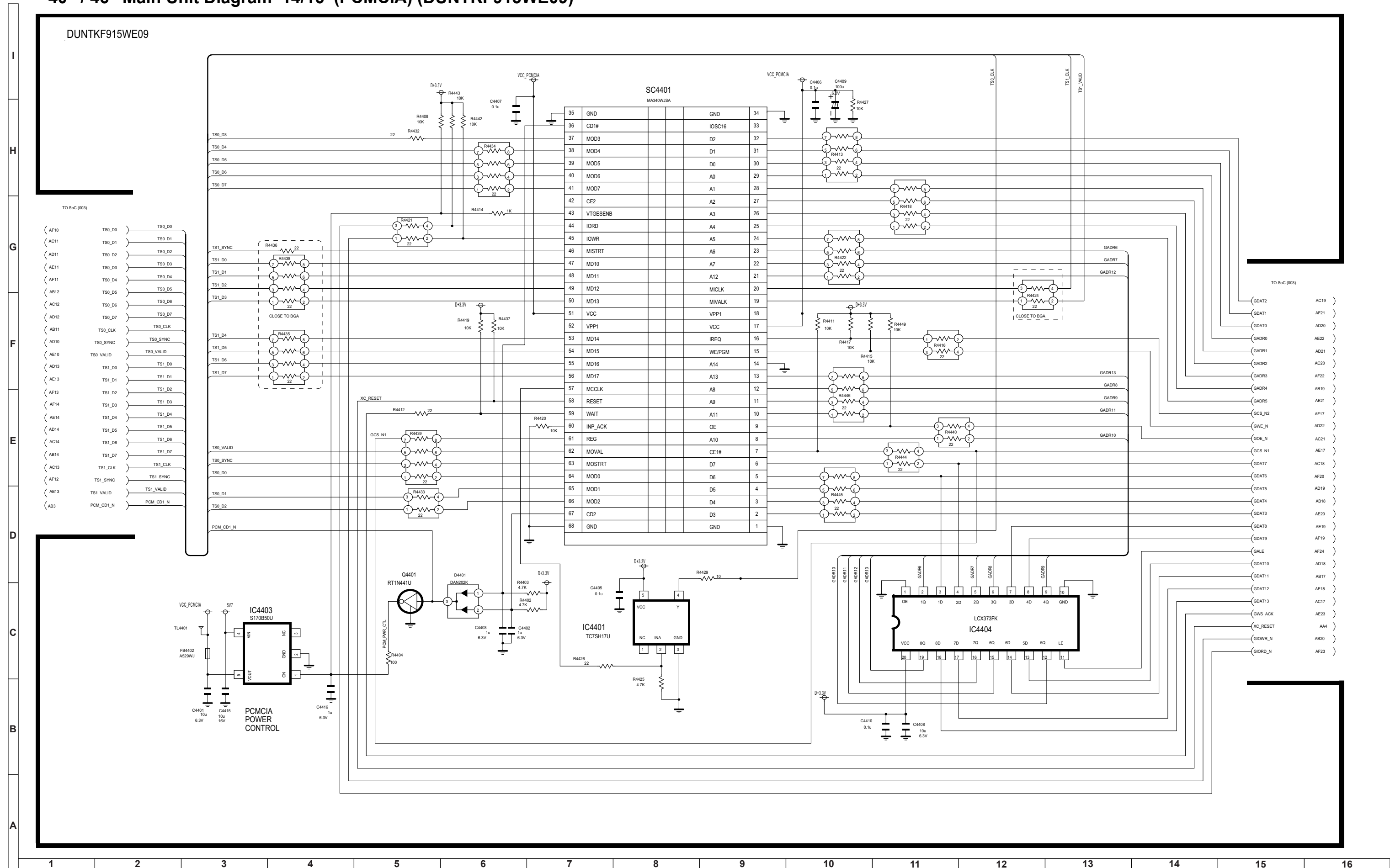
40" / 46" Main Unit Diagram 12/16 (COFDM) (DUNTKF915WE09)



40" / 46" Main Unit Diagram 13/16 (USB) (DUNTKF915WE09)



40" / 46" Main Unit Diagram 14/16 (PCMCIA) (DUNTKF915WE09)



IC8401
IXD352WJ
MT29F1G08ABADAWP

Pinout:

- Pin 1: NC
- Pin 2: NC
- Pin 3: NC
- Pin 4: NC
- Pin 5: NC
- Pin 6: NC
- Pin 7: R/B
- Pin 8: /RE
- Pin 9: /CE
- Pin 10: CE2
- Pin 11: NC
- Pin 12: VCC
- Pin 13: VSS
- Pin 14: NC
- Pin 15: NC
- Pin 16: CLE
- Pin 17: ALE
- Pin 18: /WE
- Pin 19: /WP
- Pin 20: NC
- Pin 21: NC
- Pin 22: NC
- Pin 23: NC
- Pin 24: NC
- Pin 25: VSS
- Pin 26: NC
- Pin 27: NC
- Pin 28: NC
- Pin 29: NC
- Pin 30: NC
- Pin 31: NC
- Pin 32: NC
- Pin 33: NC
- Pin 34: NC
- Pin 35: NC
- Pin 36: NC
- Pin 37: NC
- Pin 38: NC
- Pin 39: NC
- Pin 40: NC
- Pin 41: D7
- Pin 42: D6
- Pin 43: D5
- Pin 44: D4
- Pin 45: NC
- Pin 46: VCC
- Pin 47: VSS
- Pin 48: VSS
- Pin 49: NC
- Pin 50: VCC
- Pin 51: NC
- Pin 52: D3
- Pin 53: D2
- Pin 54: D1
- Pin 55: D0
- Pin 56: NC
- Pin 57: NC
- Pin 58: NC
- Pin 59: NC
- Pin 60: VSS

Connections:

- Power:** FLH 3.3V to Pin 12 (VCC) and Pin 46 (VCC). Pin 13 (VSS) and Pin 47 (VSS) to GND.
- Control Signals:**
 - NAND-ACKN to Pin 7 (R/B) via TL8411 and R8401 (4.7K).
 - GOE_N to Pin 8 (/RE) via TL8412 and R8410 (33).
 - NAND_CSN to Pin 9 (/CE) via TL8413 and R8414 (33).
 - NAND_CLE to Pin 16 (CLE) via TL8416.
 - NAND_GALE to Pin 17 (ALE) via TL8417.
 - GWE_N to Pin 18 (/WE) via TL8418 and R8414 (33).
 - SPI_WEN to Pin 19 (/WP) via TL8419 and R8416 (4.7K).
- Data Signals:**
 - D7 to Pin 41 via TL8402 and R8404 (33).
 - D6 to Pin 42 via TL8403 and R8404 (33).
 - D5 to Pin 43 via TL8404 and R8404 (33).
 - D4 to Pin 44 via TL8405 and R8404 (33).
 - D3 to Pin 52 via TL8407 and R8409 (33).
 - D2 to Pin 53 via TL8408 and R8409 (33).
 - D1 to Pin 54 via TL8409 and R8409 (33).
 - D0 to Pin 55 via TL8410 and R8409 (33).
- Capacitors:** C8401 (0.1u) at Pin 12, C8402 (0.1u) at Pin 46, and C8403 (0.1u) at Pin 13.

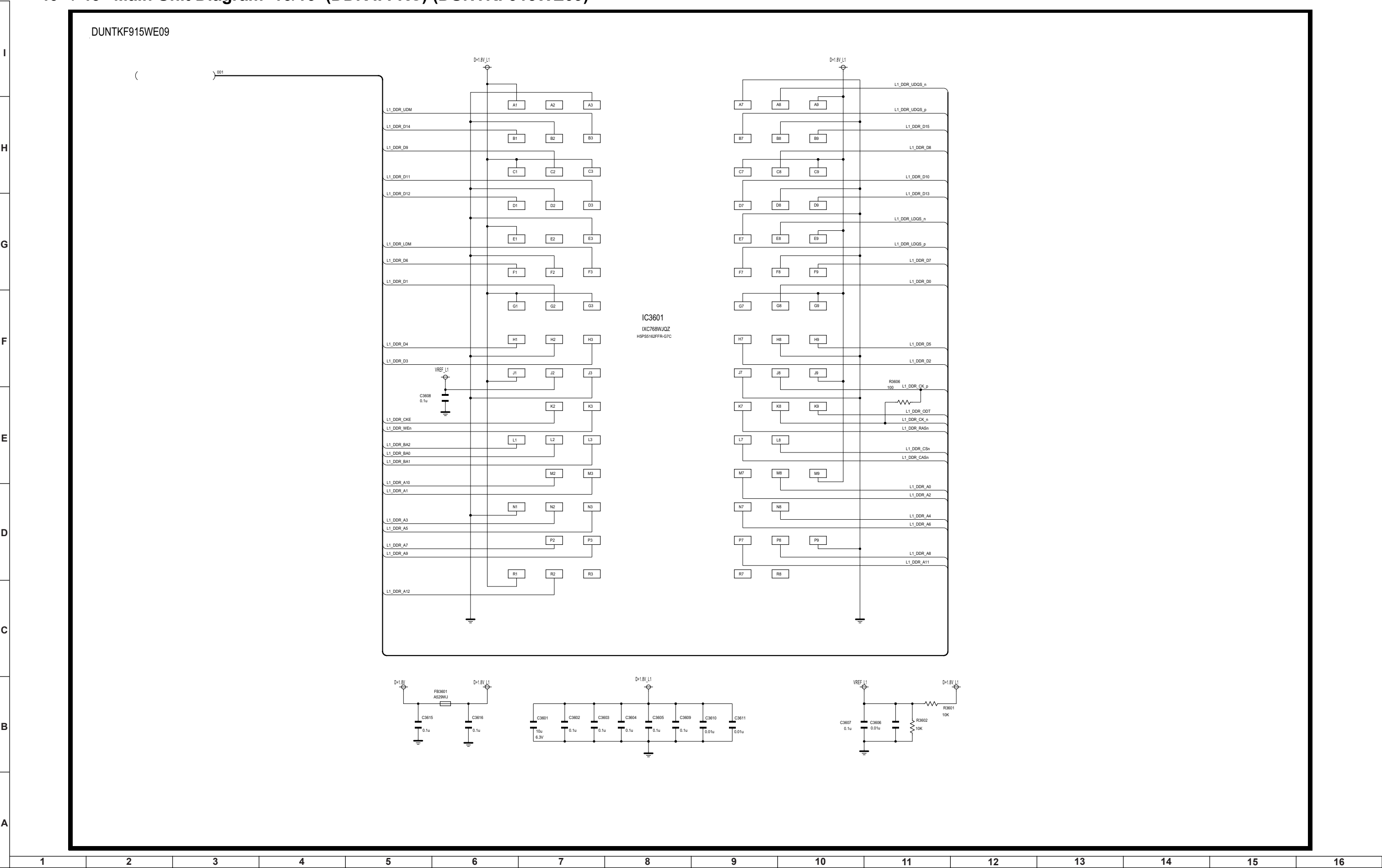
Connections to SOC (003):

- GDAT0 to AD20
- GDAT1 to AF21
- GDAT2 to AC19
- GDAT3 to AE20
- GDAT4 to AB18
- GDAT5 to AD19
- GDAT6 to AF20
- GDAT7 to AC18
- NAND-ACKN to AB21
- GOE_N to AC21
- GWE_N to AD22
- SPI_WEN to C23
- NAND_CSN to AB16 (via R8411, 33)
- NAND_CLE to AE22 (via R8412, 33)
- NAND_GALE to AD21 (via R8413, 33)

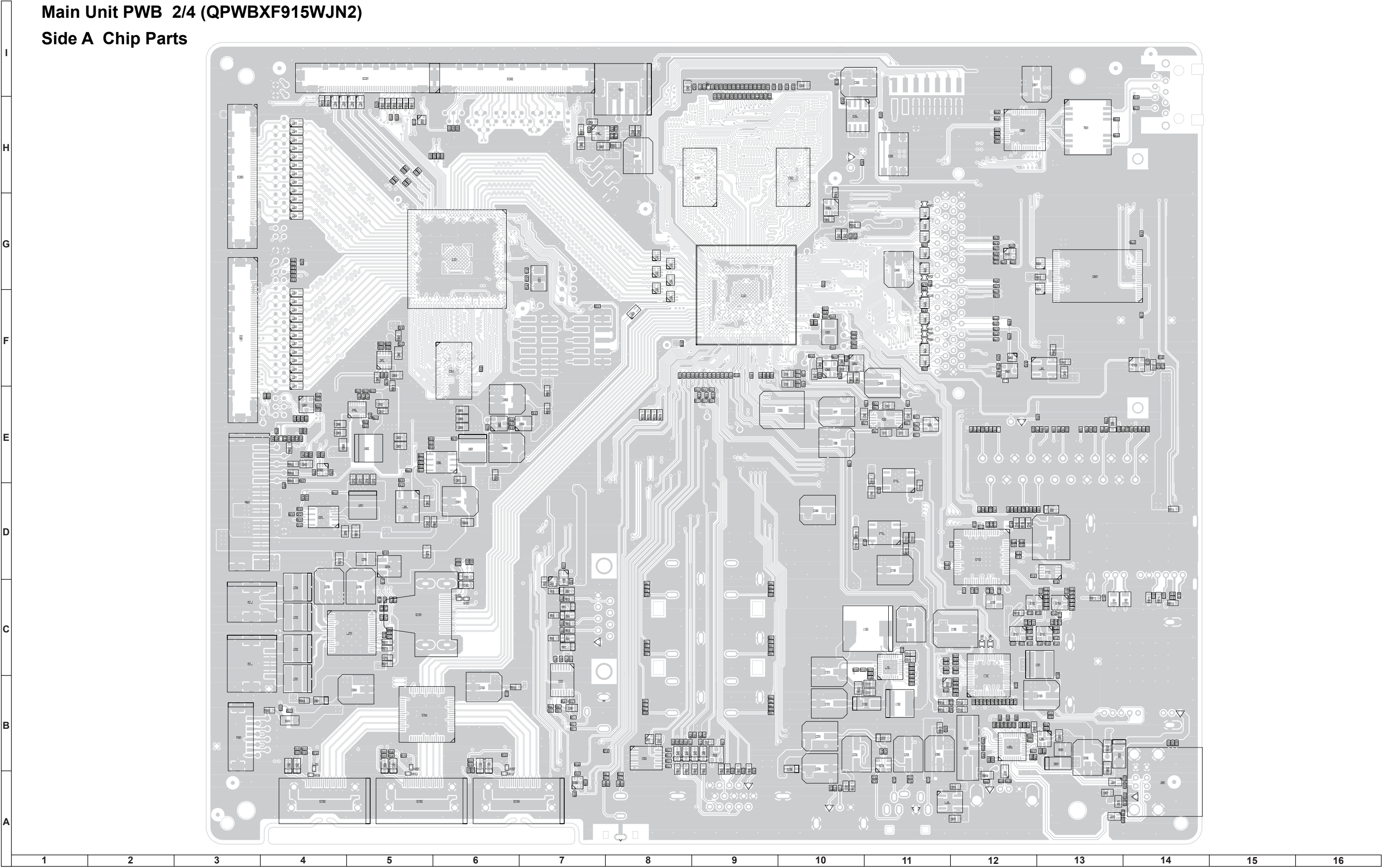
Other Connections:

- D+3.3V to FLH 3.3V via R8415 (CY 0).

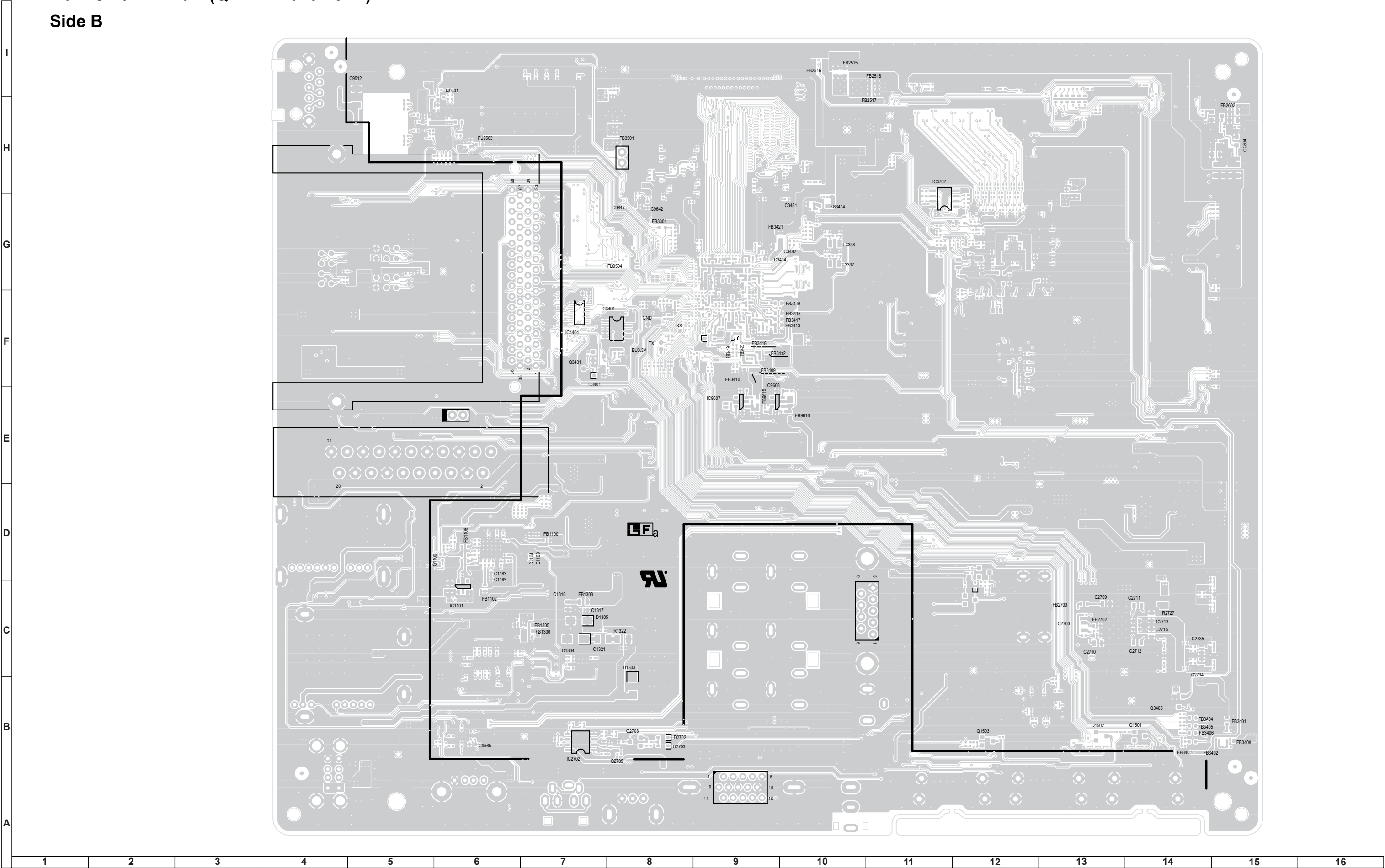
40" / 46" Main Unit Diagram 16/16 (DDR II FRC) (DUNTKF915WE09)



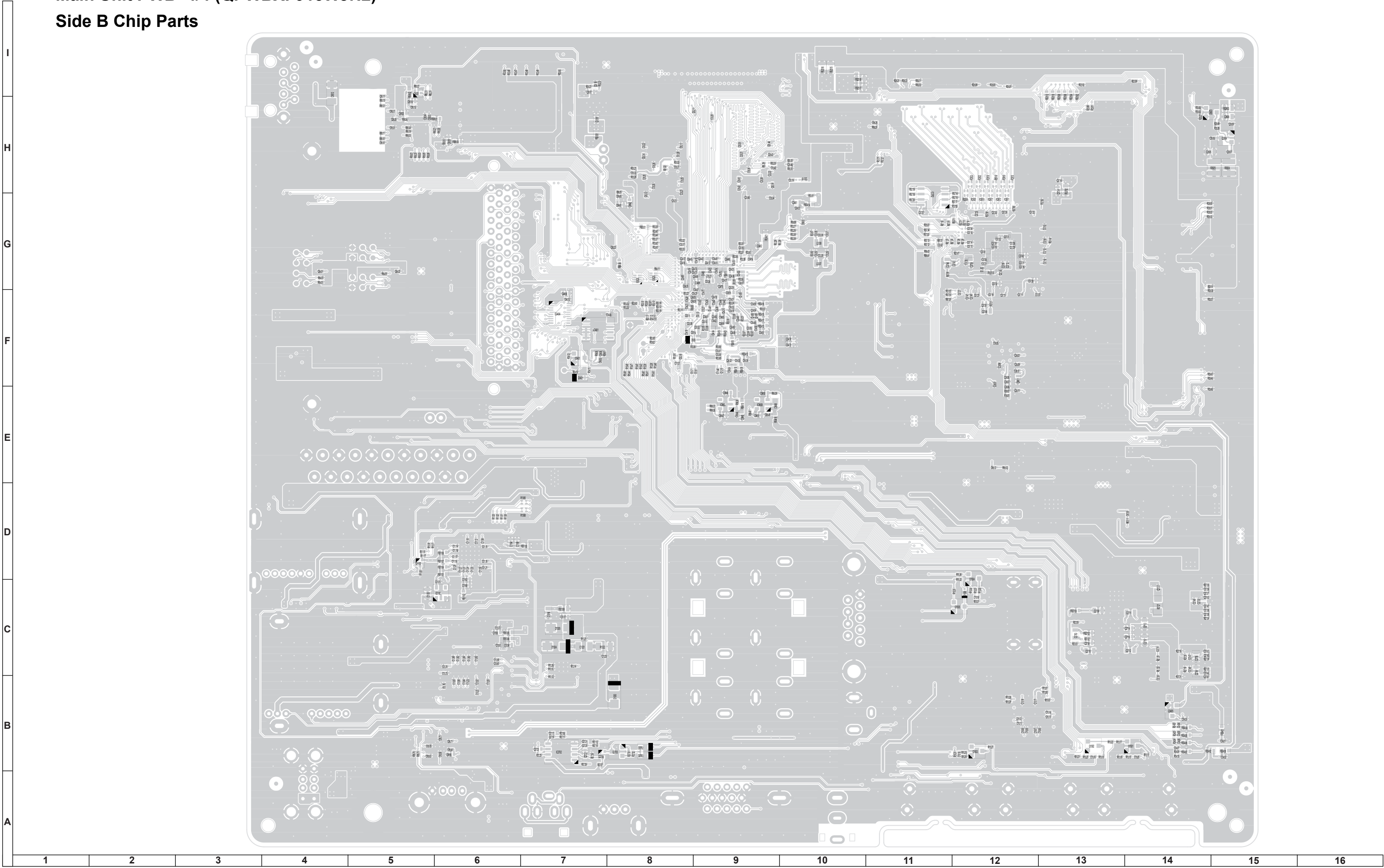
Main Unit PWB 2/4 (QPWBXF915WJN2)
Side A Chip Parts



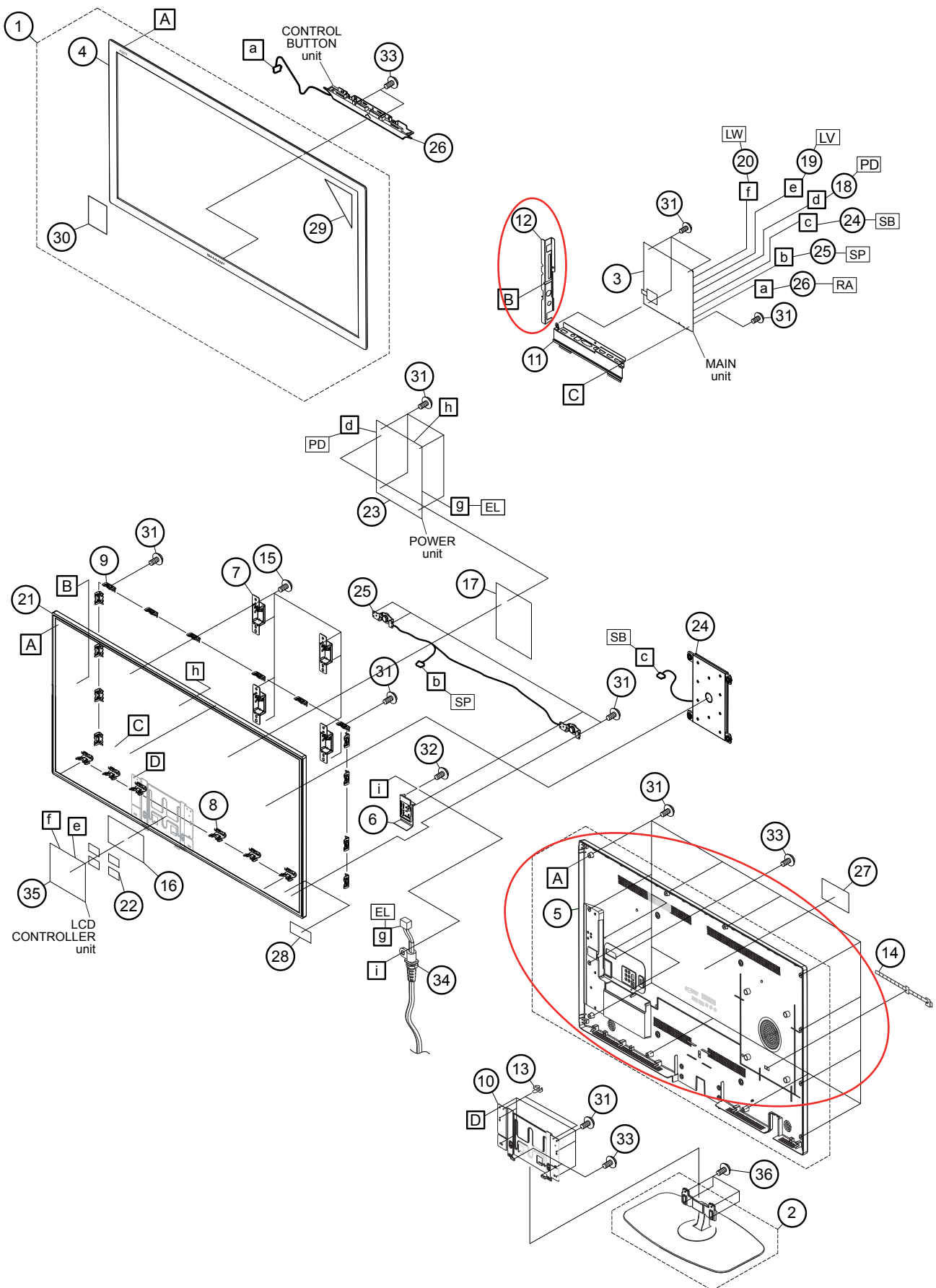
Main Unit PWB 3/4 (QPWBXF915WJN2)
Side B



Main Unit PWB 4/4 (QPWBXF915WJN2)
Side B Chip Parts



CABINET AND MECHANICAL PARTS 46"



40" CABINET AND MECHANICAL PART LISTING

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
	1	CCABAC762WJ01	KS-CAB-A LC40LE63*E/730E	P	BA
	2	CDAT-A804WJ01	KS-STAND LC40LE730E	P	BE
	3	TLABZC453WJZZ	PANEL LABEL	P	AA
	4	DUNTKF915FM09	ADJUST MAIN UNIT LE730	P	--
	5	GCABAC762WJ1A	FRONT CABINET	P	--
	6	GCABBC083WJ1A	REAR CABINET	P	BE
	7	GCOVAE259WJ1A	AC HOLDER BRACKET POWER SWITCH	P	--
	8	LANGKD343WJFW	VESA BRACKET	P	AK
	9	LANGKD368WJFW	PANEL BRACKET HOLDER (TOP AND SIDE)	P	BB
	10	LANGKD369WJFW	PANEL BRACKET HOLDER BOTTOM	P	BC
	11	LANGKD370WJFW	STAND BRACKET	P	BG
	12	LANGKD378WJFW	TERMINAL COVER BOTTOM	P	AH
	13	LANGKD554WJFW	TERMINAL COVER SIDE	P	AH
	14	LHLDWA048WJKZ	BRIDA CABLE	P	AA
	15	LHLDWA303WJKA	WIRE HOLDER	P	AC
	16	LHLDZA929WJZZ	HOLDER	P	AE
	17	PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	AG
	18	PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	AF
	19	PZETKA645WJKZ	INSULATION SHEET POWER	P	AM
	20	QCNW-M004WJQZ	CABLE (PD)	P	AK
	21	QCNW-M251WJQZ	CABLE (LV) 51PINS	P	AQ
	22	QCNW-M252WJQZ	CABLE (LW) 41PINS	P	AQ
	23	RILK400D3LB43P	40" LCD MODULE LK400D3LB43P	P	DG
	24	RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠	25	RDENCA440WJQZ	POWER WITH LED DRIVER 40" LE730	P	BN
	26	RSP-ZA549WJZZ	SPEAKER 6 OHM 12W FULL RANGE	P	BA
	27	RSP-ZA550WJZZ	SPEAKER 2x4 OHM 5W TWEETER	P	AU
	28	RUNTKA880WJPA2	CONTROL BUTTON UNIT LE730E BLACK	P	BC
	29	TLABNC117WJZZ	ETIQUETA MODELO 3M 7291 ADHESIVO AP-360	P	AA
	30	TLABZC949WJZZ	CE ENERGY LABEL	P	AH
	31	TLABZC950WJZZ	POP LABEL	P	--
	32	XBPS730P06000	SCREW PAN ST ZN M3x6	P	AA
	33	XEPS730P08W50	SCREW PAN ST ZN 3x8	P	AA
	34	XEPS730P12W50	SCREW PAN ST ZN 3x12	P	AA
	35	XBPS730P06W50	SCREW PAN ST ZN M3x6	P	AA
	36	QACCKA058WJPZ	AC CORD LE730	P	AQ
	37	RUNTK4593TPZU	LCD CONTROLER UNIT	P	BQ
	38	LX-BZA429WJF8	STAND SCREW M4x10 BK (CSAKAA186WJ01)	P	--

46" CABINET AND MECHANICAL PART LISTING

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
	1	CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	BD
	2	CDAT-A805WJ01	KS-STAND LC46LE730E	P	BE
	3	DUNTKF915FM09	ADJUST MAIN UNIT LE730	P	--
	4	GCABAC769WJ1A	FRONT CABINET	P	BD
	5	GCABBC084WJ1A	REAR CABINET	P	BH
	6	GCOVAE259WJ1A	AC HOLDER BRACKET POWER SWITCH	P	--
	7	LANGKD343WJFW	VESA BRACKET	P	AK
	8	LANGKD369WJFW	PANEL BRACKET HOLDER BOTTOM	P	BC
	9	LANGKD373WJFW	PANEL BRACKET HOLDER TOP	P	--
	10	LANGKD375WJFW	STAND BRACKET	P	--
	11	LANGKD378WJFW	TERMINAL COVER BOTTOM	P	AH
	12	LANGKD556WJFW	TERMINAL COVER SIDE	P	AH
	13	LHLDWA048WJKZ	BRIDA CABLE	P	AA
	14	LHLDWA303WJKA	WIRE HOLDER	P	AC
	15	LX-BZA425WJF7	SCREW WASHER M4x 8 mm. (Silver)	P	AA
	16	PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
	17	PZETKA645WJKZ	INSULATION SHEET POWER	P	AM
	18	QCNW-M004WJQZ	CABLE (PD)	P	AK
	19	QCNW-M365WJQZ	CABLE (LV) 51 PINS	P	AR
	20	QCNW-M367WJQZ	CABLE (LW) 41 PINS	P	AQ
	21	RILK460D3LB33P	46" LCD MODULE LK460D3LB33P	P	DQ
	22	RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠	23	RDENCA440WJQZ	POWER WITH LED DRIVER 40" LE730	P	BN
	24	RSP-ZA549WJZZ	SPEAKER 6 OHM 12W FULL RANGE	P	BA
	25	RSP-ZA550WJZZ	SPEAKER 2x4 OHM 5W TWEETER	P	AU
	26	RUNTKA880WJPA2	CONTROL BUTTON UNIT LE730E BLACK	P	BC
	27	TLABNC117WJZZ	ETIQUETA MODELO 3M 7291 ADHESIVO AP-360	P	AA
	28	TLABZC453WJZZ	PANEL LABEL	P	AA
	29	TLABZC950WJZZ	POP LABEL	P	--
	30	TLABZD041WJZZ	CE ENERGY LABEL	P	AH
	31	XBPS730P06W50	SCREW PAN ST ZN M3x6	P	AA
	32	XEPS730P08W50	SCREW PAN ST ZN 3x8	P	AA
	33	XEPS730P12W50	SCREW PAN ST ZN 3x12	P	AA
	34	QACCKA058WJPZ	AC CORD LE730	P	AQ
	35	RUNTK4593TPZV	LCD CONTROLER UNIT	P	BQ
	36	LX-BZA429WJF8	STAND SCREW M4x10 BK (CSAKAA186WJ01)	P	--



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